

Appl. No. : 09/315,292
Filed : May 20, 1999

AMENDMENTS TO THE CLAIMS

1-98. (Canceled).

99. (Currently Amended) A method for enhancing cellular uptake of an oligonucleotide administered as an aerosol into a lung of a mammal by including 2'-O-methoxyethyl and 5-methylcytosine modifications in said oligonucleotide, said method comprises comprising:

administering an aerosolized oligonucleotide into the lung of a mammal,

wherein the aerosol particles have a size of about 1 to about 5 microns, wherein said oligonucleotide is 15 to 25 nucleotides in length, wherein at least 10 nucleosides in said oligonucleotide are 2'-O-methoxyethyl nucleosides, wherein each cytosine of said oligonucleotide is a 5-methylcytosine, and wherein said oligonucleotide is taken up by at least one cell type in the lung of the mammal.

100. (Previously Presented) The method of claim 99, wherein at least one internucleotide linkage within said oligonucleotide is a phosphorothioate linkage.

101-102. (Canceled).

103. (Previously Presented) The method of claim 99, wherein said oligonucleotide is in an aqueous media.

104. (Previously Presented) The method of claim 99, wherein said oligonucleotide is in sterilized, pyrogen free water.

105. (Previously Presented) The method of claim 99, wherein said oligonucleotide is in a saline solution.

106. (Previously Presented) The method of claim 99, wherein said oligonucleotide is in a powder.

107. (Previously Presented) The method of claim 99, wherein each internucleotide linkage within said oligonucleotide is a phosphorothioate linkage.

108-118. (Canceled).

119. (Previously Presented) The method of claim 99, wherein said oligonucleotide is 20 nucleotides in length, and said oligonucleotide is in a saline solution.

120. (Canceled).

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121. (Previously Presented) The method of claim 119, wherein each internucleotide linkage within said oligonucleotide is a phosphorothioate linkage.

122-127. (Canceled).

128. (Previously Presented) The method of claim 119, wherein each nucleoside in said oligonucleotide is a 2'-O-methoxyethyl nucleoside.

129. (Previously Presented) The method of claim 99, wherein at least 10 to all but one nucleosides in said oligonucleotide are 2'-O-methoxyethyl nucleosides.